REMARKS

Claims 1 through 12 were pending in this patent application. Claims 1, 2, 7 and 11 have been amended to more clearly define and distinctively claim the invention. Claims 4 and 10 have been cancelled.

Objection to Drawings

The drawings have been objected to as being somewhat illegible in figures 2a-2c. A set of formal drawings is submitted herewith that clearly show the lettering and numbering in the figures. Applicants therefore respectfully submit that this objection has been obviated.

Specification

The abstract of the disclosure has been edited by using proper language in the description of the abstract. It is therefore respectfully submitted that the Examiner's objection has been overcome.

Rejection of Claims 4 and 10 under 35 USC §112, First Paragraph

Claims 1 and 4 have been rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. The Examiner stated that:

> "The claim(s) contain subject matter which was not described in the specification. Applicant states, '…said elongated portion has an approximately rectangular cross-sectional shape.' Applicant however does not disclose this specific configuration within the specification."

The specification has been amended in paragraph 31 to describe that the elongated portion has an approximately rectangular cross-sectional shape. In the original paragraph 31, it provides some description about core ends protruding from an elongated portion resulting in ends having rectangular shapes. Additional support for the amendment can be found, for

example, in the original Claims 4 and 10. Applicants therefore respectfully submit that the Examiner's §112 rejection has been overcome.

Rejection of Claims 1 and 7 under 35 USC § 102

Claims 1 and 7 have been rejected under 35 USC §102 as been anticipated by U.S. Patent Number 6,075,430 to Lindqvist. The Examiner stated that:

> Regarding claim 1, Lindqvist discloses an inductive component, comprising: (1) magnetic core (1) having an elongated cylinder (2); (2) two flanges (3, 4), one located at each outer end (8, 9) of the elongated cylinder (2) defining a planar surface; (3) a coil (6) wound around the center part of the cylinder (2) between the flanges (3, 4)."

Claim 1 has been amended to recite an inductive element comprising:

> a magnetic core having a central elongated portion and two end portions, each said end portion defining an end portion planar surface, said elongated portion having an approximately rectangular cross-sectional shape; and
>
> a winding wound about said elongated portion, where the outer surface of said winding defines a planar surface that is coplanar with each said end portion planar surface so as to facilitate surface mounting of said magnetic core and winding on an adjacent structure. (Emphasis Added).

First, in contrast, the Lindqvist reference discloses an inductive element with a dumbbell shaped magnetic core having a cylindrical portion with planar outer ends and two flanges that form the end portion of a dumbbell shape. As shown in figures 1a and 1b, the two flanges 3 and 4 are designed in a cylindrical shape. The outer ends 8 and 9 of the magnetic core have a planar surface found by winding a wide strip material around a non-magnetic material (see the Abstract). The term "flanges" in Lindqvist refer to the two pieces that are located on each end of a cylinder, which form the end pieces of the dumbbell shaped magnetic core. The term "outer ends 8 and 9" refer only to the one side of the flange that has a planar surface.

Claim 1 recites, in pertinent part, that "the outer surface of said winding defines a planar surface that is coplanar with each said end portion planar surface". (Emphasis Added). The end portions in Lindqvist, which are the flanges, are not coplanar with the outer planar surface of the

winding shown in Lindqvist. Nor does the winding in Lindqvist define a planar surface.

Second, the Lindqvist reference teaches using a dumbbell shaped magnetic core having a pair of flanges having a circular shape. In figures 1a and 1b and the summary of the invention in Lindqvist, the magnetic core is a cylinder comprised of a wide strip wound around non-magnetic material. Claim 1, as amended, recites "a magnetic core having a central elongated portion and two end portions, each said end portion defining an end portion planar surface, said elongated portion having an approximately rectangular cross-sectional shape. (Emphasis Added). There is no teaching or suggestion in Lindqvist of an elongated portion having an approximately rectangular cross-sectional shape.

It is therefore respectfully submitted that Claim 1, as now amended, is not anticipated by the cited reference of Lindqvist.

With respect to Claim 7, the Examiner stated that:

> "Regarding claim 7, Lindqvist discloses an inductive device. The inductive device comprising: (1) two (first and second) magnetic cores both having an elongated central cylinder; (2) two flanges on each core; one flange located at each other end of the cylinder; the flanges defining a planar surface; (3) a coil wound around the center part of each cylinder, between the flanges; (4) a yoke (10) securing the cores together such that the planar surface flanges of one core is coplanar with the planar surface flanges of the second core (figures 2a-2c)."

As amended, Claim 7 now recites a transformer comprising:

first and second magnetic cores each having a central elongated portion and two end portions, each said end portion defining an end portion planar surface, said elongated portion having an approximately rectangular cross-sectional shape area;

a winding about each said elongated portion of said two magnetic cores, where the outer surface of each winding defines a planar surface that is coplanar with each said end portion planar surface of its respective core; and

a material for affixing the end portions of said first and second magnetic cores together such that the end portion planar surface of each end portion of said first core is coplanar

with the end portion planar surface of each end portion of said second core. (Emphasis Added).

Claim 7 includes similar limitations as Claim 1 and recites "said elongated portion having an approximately rectangular cross-sectional shape area" and "the outer surface of each winding defines a planar surface that is coplanar with each said end portion planar surface of its respective core". The arguments presented above with respect to Claim 1 are also applicable to Claim 7. Applicants therefore respectfully submit that Claim 7, as now amended, is not anticipated by the Lindqvist reference.

Rejection of Claims 2-6 and 8-12 under §103

Claims 2-6 and 8-12 have been rejected under 35 USC §103(a) as being unpatenable over U.S. Patent Number 6,075,430 to Lindqvist in view of U.S. Patent Number 6,512,175 to Gutierrez. The Examiner stated that

> With respect to Claims 2-6 and 8-12 the Examiner stated that:
>
> "Lindqvist discloses the claimed invention except for a mounting frame used to surround a core or cores; secure wire ends; and enables the core/cores to be surfaced mounted on an adjacent structure.
>
> Gutierrez discloses electrical and electronic elements used in printed circuit board applications comprising an electronic packaging device comprising at least one core having a winding located within a non-conducting base member having; the base member having a plurality of lead channels and lead terminals formed therein. The wire leads of the winding are routed through the lead channels and connected to the lead terminals. A plurality of lead terminals, adapted to cooperate with the lead channels, are received within the lead channels, thereby forming an electrical connection between the lead terminals and the wire leads of the electronic component. (Abstract; figure 9; column 5, lines 6-8).
>
> One skilled in the art, at the time the invention was made, would have found it obvious to combine the teachings of Lindqvist with the teachings of Gutierrez and incorporate a base/mounting body with terminals about any core structure for the purposes of electrically connecting the windings and the device to a substrate such as a printed circuit board."

Claim 2 has been amended to include similar limitations as Claim 1. As amended, Claim 2 now recites an inductive element comprising:

> a first magnetic core having a central elongated portion and two end portions, each said end portion defining an end portion planar surface, said central elongated portion having an approximately rectangular cross-sectional shape;
>
> a first winding wound about said elongated portion, where the outer surface of said first winding defines a planar surface that is coplanar with each said end portion planar surface; and
>
> a mounting frame to secure the wire ends of said first winding and to enable said first core and first winding to be surface mounted on an adjacent structure such that a portion of the planar surface of said adjacent structure is in contact with said end portion planar surfaces and said first winding planar surface to enhance heat transfer to said adjacent structure from said inductive element. (Emphasis Added).

The arguments presented above with respect to Claim 1 are also applicable to Claim 2. Furthermore, Claim 2 recites "a mounting frame to secure the wire ends of said first winding and to enable said first core and first winding to be surface mounted on an adjacent structure such that a portion of the planar surface of said adjacent structure is in contact with said end portion planar surfaces and said first winding planar surface to enhance heat transfer to said adjacent structure from said inductive element." Neither Lindqvist nor Gutierrez discloses a structure that enhances heat transfer. It is therefore respectfully submitted that Claim 2 is patentable over the cited references of Lindqvist and Gutierrez.

Claims 3 through 6 are dependent on Claim 2 and thus are patentable for at least the same reasons given above with respect to Claim 2.

Claims 8 through 9 are dependent on Claim 7 and thus are patentable for at least the same reasons given above with respect to Claim 7.

Independent method Claim 11 has been amended to include similar limitations as Claim 1 and thus the arguments presented above with respect to Claim 1 are also applicable to Claim

10. Claim 12 is dependent on Claim 11 and thus are patentable for at least the same reasons given above with respect to Claim 11.

CONCLUSION

Based on the above, Applicants respectfully submit that all pending claims, Claims 1-3, 5-9 and 11-12, in the present application are in condition for allowance. Such allowance is respectfully solicited. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (650) 739-2800.

Respectfully submitted,

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